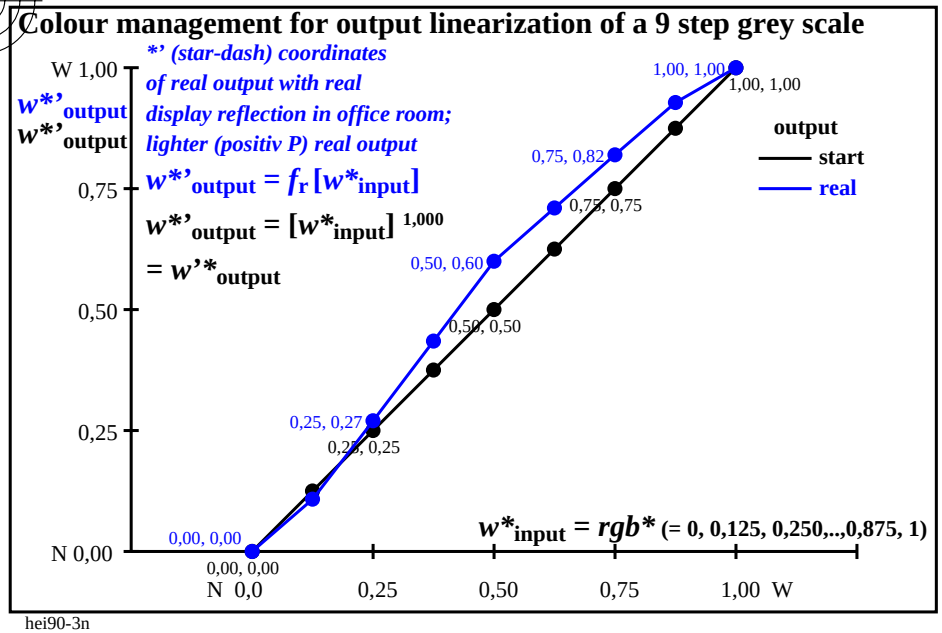
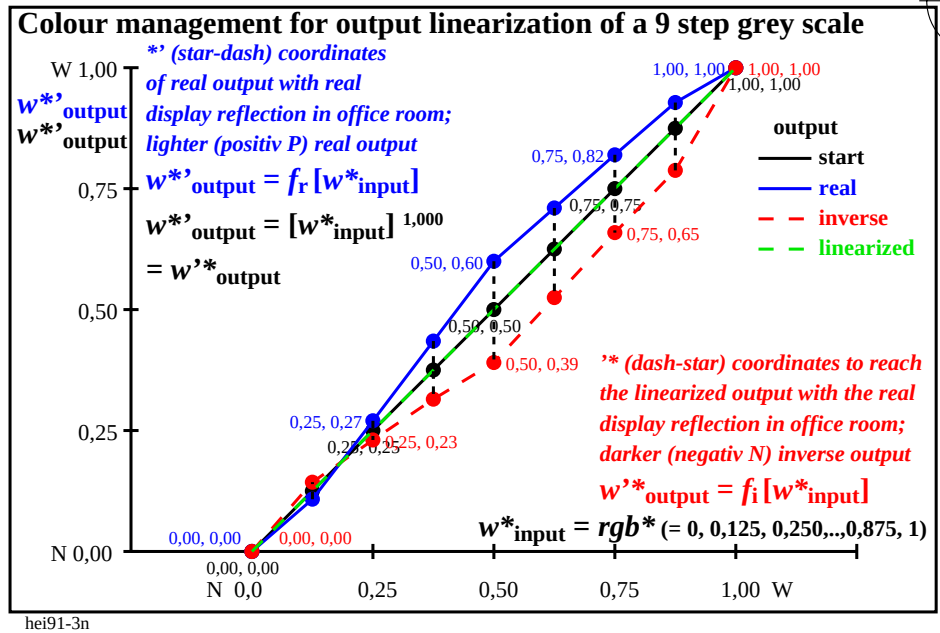
Colour management for output linearization of a 9 step grey scale



hei90-3n

Colour management for output linearization of a 9 step grey scale



hei91-3n

Three, 5 and 9 colour steps for visual evaluation

s: 0, 125, 250, 375, 500, 625, 750, 875, 1000
Black N00c − Black N16c = Cyan C
$L^*_{TUBLOG,U}=[50/\log(5)]\ \log(Y/Y_U)+50$, $Y_N=4$, $Y_U=20$, $Y_W=100$

N00c	N08c	N16c	N00c	N04c	N08c	N12c	N16c	N00c	N02c	N04c	N06c	N08c	N10c	N12c	N14c	N16c
								0	12?	25?	37?	50?	62?	75?	87?	100

Three, 5 and 9 colour steps, numeric specification

0,00 0,00	e08=0, . . a1=e08	1,00 1,00	0,00 0,00	e04=0, . . b1=e04*a1	1,00 0,00 b2=a1	e48=0, . . b3=e48* (1−b2)+b2	1,00 1,00	0,00 0,00	e02=0, . . c1=e02*b1	1,00 0,00 c2=b1	c24=0, . . c3=e24* (b2−b1)+b1	0,00 1,00 c4=b2	e46=0, . . c5=e46* (b3−b2)+b2	1,00 0,00 c6=b3	e68=0, . . c7=e68* (1−b3)+b3	1,00 1,00

Three, 5 and 9 colour steps, numeric calculation example

0,00 0,000 0,000	0,60 0,600 0,390	1,00 1,000 1,000	0,00 0,000 0,000	0,45 0,270 0,230	1,00 0,00 0,600 0,390	0,55 0,820 0,658	1,00 1,000 1,000	0,00 0,000 0,000	0,40 0,108 0,143	1,00 0,00 0,270 0,230	0,49 0,435 0,314	0,00 1,00 0,600 0,390	0,50 0,710 0,524	1,00 0,00 0,820 0,658	0,60 0,928 0,787	1,00 1,000 1,000

r: 0, 108, 270, 435, 600, 710, 820, 928, 1000
i: 0, 143, 230, 314, 390, 524, 658, 787, 1000

Three, 5 and 9 colour steps, produced visual linearization

Black N00c − Black N16c = Cyan C
$L^*_{TUBLOG,U}=[50/\log(5)]\ \log(Y/Y_U)+50$, $Y_N=4$, $Y_U=20$, $Y_W=100$

N00c	N08c	N16c	N00c	N04c	N08c	N12c	N16c	N00c	N02c	N04c	N06c	N08c	N10c	N12c	N14c	N16c

hei90-7n, Test samples: 3, 5 and 9 colour steps, greu=0,500, expu=1,000, expa=1,000, expi=1,000